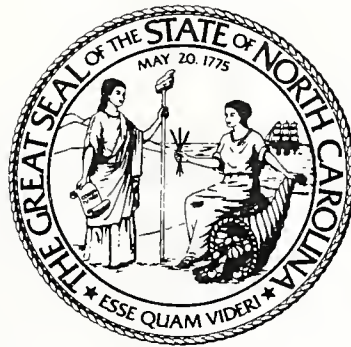




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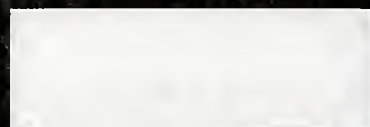
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OF THE GOVERNOR'S TASK FORCE

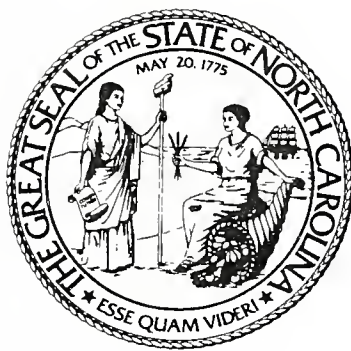


TO STUDY THE FINDINGS OF THE
NORTH CAROLINA NUTRITION SURVEY

1972



REPORT
OF THE GOVERNOR'S TASK FORCE



TO STUDY THE FINDINGS OF THE
NORTH CAROLINA NUTRITION SURVEY

1972

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June 14, 1972

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The Honorable Robert W. Scott
Governor of North Carolina
Governor's Office
Raleigh, North Carolina 27611

Dear Governor Scott:

It is with great pleasure that we transmit to you the report of the Governor's Task Force to Study the Findings of the North Carolina Nutrition Survey. Our Task Force has studied the Survey Report carefully and has explored its implications at some length, using expert consultation. We feel that the recommendations devolving from our deliberations are sound, realistic and, if accepted and implemented by your office, will provide the necessary initiative for a revitalized attack upon malnutrition among our citizens.

Please accept our thanks for the confidence you have shown in this group of fifteen men and women by entrusting us with this responsibility. We hope that we have responded adequately and productively to the charge and have, thereby, provided you with the information you need to move state government ahead with action programs in the field of food and nutrition.

Very sincerely yours,

A handwritten signature in cursive script that reads "Ron Levine".

Ronald H. Levine, M.D., M.P.H.
Chairman

RHL:ep


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TABLE OF CONTENTS

	<u>Page</u>
Letter of Transmittal	i
Introduction	1
Recommendations	4
Summary of Findings North Carolina Nutrition Survey, Part I	15

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REPORT OF THE GOVERNOR'S TASK FORCE TO STUDY THE FINDINGS OF THE NORTH CAROLINA NUTRITION SURVEY

INTRODUCTION

At the request of Governor Robert Scott, the North Carolina State Board of Health in 1970-71 carried out an intensive survey of the nutritional status of North Carolina. The results of this survey, submitted to Governor Scott and released to the general public on July 19, 1971, were disturbing to all, in that they exposed serious deficiencies in the quality of diet of many of our citizens.

In brief, the North Carolina Nutrition Survey revealed that 27% of the households in the state had nutritionally inadequate diets, this percentage being lower as household income rose. This relationship between income and dietary adequacy was not as marked in pre-school children although fully 43% of these children had inadequate diets.

As the number of years of formal schooling of the homemaker increased through the high school years, the percentage of households with inadequate diets decreased. Homemakers with good nutrition knowledge represented a larger percentage of households with optimal diets and a smaller percentage of households with inadequate diets than those homemakers with poor nutrition knowledge. There were also fewer children with inadequate diets when the homemaker had good nutrition knowledge.

Thus, the North Carolina Nutrition Survey pointed out three factors that are related to diet adequacy:

- Household income

- Formal education of the homemaker

- Nutrition knowledge of the homemaker

Of the three factors, nutrition knowledge of the homemaker had the closest relationship to the adequacy of diets of preschool children. [For further details, see supplemental summary, pp. 17.]

Upon receipt of the report of the North Carolina Nutrition Survey from Dr. Jacob Koomen, State Health Director, Governor Scott indicated his great concern over the findings and pledged the support of his administration in the correction of the deficiencies disclosed. The Governor appointed the Task Force to Study the Findings of the North Carolina Nutrition Survey and charged this Task Force with developing concrete and specific recommendations for administrative and/or legislative action designed to improve the nutritional status of our citizens.

The Task Force met, under the chairmanship of Dr. Ronald H. Levine, on December 30, 1971. The membership divided itself into three major committees, paralleling the three major food and nutrition problem areas as delineated by the Task Force. These committees were as follows:

1. Nutrition Education Committee

Dr. Garland Hendricks, Chairman
Dr. Eloise Cofer
Dr. Joseph Edozien
Dr. Ronald H. Levine
Mr. Alvin Smith

2. Food Assistance Committee

Mr. Max Hovis, Chairman
Mr. Jay P. Davis
Mr. Ralph Eaton
Mr. John Kerr
Mr. Thompson Greenwood

3. Committee on Adequacy of Food Purchasing Power

Dr. Olson Huff, Chairman
Mrs. Dorothy Allen
Dr. George C. Debnam
Dr. Howard Schneider
Dr. George Wise

The committees worked independently, calling a number of consultants to provide needed information and insight. Committee deliberations were shared and discussed at subsequent meetings of the entire Task Force. The recommendations to follow, then, represent the consensus of this Task Force and constitute the key portion of the report.

RECOMMENDATIONS

1. Office of Food and Nutrition

The Task Force was impressed with the number of food and nutrition organizations and interests within North Carolina. The multiplicity of programs makes it imperative that there be a unit within state government to coordinate present programs and to plan for future programs if progress and efficiency are to be realized. Such an office could be instrumental in:

- (1) Mobilizing the mass media as a positive and constructive force in nutrition education.
- (2) Bringing the science of nutrition and its application into the curricula of all health professionals, including physicians, dentists, and nurses.
- (3) Seeking the initiation of programs that would provide good nutrition for all children during the critical early stages of life.
- (4) Obtaining additional support from federal agencies, business and industry in the battle to upgrade the nutritional adequacy of the diets of North Carolinians.
- (5) Encouraging appropriate federal and state legislation requiring the enrichment and fortification of selected foods commonly consumed by North Carolina families.
- (6) Stimulating wider citizen concern for better nutrition through involvement of service clubs, unions, religious bodies, and youth groups.

Direction of the office could be facilitated by an advisory panel composed of representatives of (1) those for whom special

nutrition programs are designed, (2) the field of education, (3) the field of economics, (4) the field of agriculture, (5) the food industry, (6) the practice of medicine, and (7) the field of nutrition.

RECOMMENDATION

WE RECOMMEND THAT YOU ESTABLISH A FULL-TIME OFFICE OF FOOD AND NUTRITION, PREFERABLY WITHIN THE NORTH CAROLINA DEPARTMENT OF HUMAN RESOURCES. YOUR PRIMARY CHARGE TO THIS OFFICE WOULD BE TO UNDERTAKE THE COORDINATION WITHIN THE STATE OF ALL CURRENT AND FUTURE PROGRAMS RELATED TO FOOD AND NUTRITION.

2. Nutrition Workers

The North Carolina Nutrition Survey shows that the nutrition knowledge of the homemaker has a direct influence upon the quality of diet consumed by the household. When the nutrition knowledge of the homemaker was at a high level, there was a larger proportion of optimal diets and a smaller proportion of inadequate diets. Among the preschool children in the survey, the proportion with inadequate diets decreased as nutrition knowledge of the mother increased. However, only a third of the homemakers had a high level of nutrition knowledge. This fact reveals the need for a statewide community nutrition education program as an essential part of ongoing community health services and for well-prepared nutrition workers to conduct the program at the local level. At present, only two counties in North Carolina employ nutrition workers in generalized community health programs; in four counties, nutrition workers are employed by either a Children and Youth Project, or a Maternal and Infant Care Project. Deployment of prepared nutrition workers would enhance the quality of services so badly needed at the local level and would augment advancement of nutrition education throughout the state.

The Department of Human Resources, Office of Health Services, is requesting in their 1973-1975 Change Budget, funds to provide community nutrition workers to counties throughout North Carolina.

RECOMMENDATION

WE RECOMMEND YOUR SUPPORT OF BUDGETARY REQUESTS BY THE DEPARTMENT OF HUMAN RESOURCES DESIGNED TO INCREASE THE AVAIL_ ABILITY OF PREPARED NUTRITION WORKERS IN LOCAL HEALTH PROGRAMS TO SERVE INDIVIDUAL PATIENTS AND THE COMMUNITY.

3. Nutrition Education for Teachers

Nutrition education is part of the required health education program in elementary schools in North Carolina. Yet teachers repeatedly question their own ability to adequately present the nutrition units that are to be taught. The school has an important role in promoting and maintaining the nutritional well-being of the child so that he may learn and function at his highest capability.

At the present time, no requirement exists for the professional teacher to include nutrition education in her preparatory curriculum. Too often suitable courses are not offered at educational institutions.

From time to time, universities have provided summer nutrition workshops or credit courses for teachers, but there is need for more frequent availability of such educational experiences. To augment the participation of teachers in nutrition training, the Department of Public Instruction recognizes nutrition courses as acceptable for teacher certificate renewal.

RECOMMENDATION

WE RECOMMEND THAT THE BOARD OF HIGHER EDUCATION ENCOURAGE NUTRITION EDUCATION TRAINING IN THE PREPARATION OF ELEMENTARY AND APPROPRIATE SECONDARY SCHOOL TEACHERS AND THAT THE BOARD TAKE STEPS TO SEEK THE AVAILABILITY OF RENEWAL CREDIT COURSES IN NUTRITION EDUCATION FOR PRESENTLY CERTIFIED ELEMENTARY TEACHERS.

4. Vocational Education

The average income in the nutrition survey sample of North Carolina households was \$6,438, well below the national average. A close relationship between low income and low educational levels was documented by the nutrition survey, and Department of Social Services records show that 45% of the AFDC mothers in 1971 had completed eight years or less of schooling.

Income is also affected by regularity of employment. The Employment Security Commission reports that some ninety thousand of our citizens were out of work at any given time in 1971.

The Occupational Education Program of the Department of Public Instruction provides many public school and technical school students opportunity to learn vocational skills. However, there are great differences in the opportunities for vocational training offered among the several high schools in the state. Graduates of occupational education programs have more success in finding work than others of the same age. Five months after graduation, only 3-5 percent are unemployed, compared to 15-18 percent unemployment in the age groups as a whole.

A priority in education today is to provide career exploration experiences for students in grades 7, 8 and 9, assisting students in making wise decisions in choosing training programs. The General Assembly appropriated three million dollars to begin this program which during the present year of the 1971-73 biennium has reached 18% of the target population. The objective of the Occupational Education Division of the Department of Public Instruction is to reach 80% of these middle-grade students by 1977.

Programs for vocational training and retraining for adults whose skills are either insufficient or obsolete should be more generally available. Many employed adults would benefit from an educational system that is directed specifically toward their needs.

RECOMMENDATION:

WE RECOMMEND YOUR SUPPORT OF THE EFFORTS OF THE NORTH CAROLINA MANPOWER COUNCIL TO COORDINATE THE MANY VOCATIONAL PROGRAMS AVAILABLE IN THE STATE AND OF THE BUDGETARY REQUESTS OF THE OCCUPATIONAL EDUCATION PROGRAM OF THE STATE DEPARTMENT OF PUBLIC INSTRUCTION.

5. School Lunch

During the fiscal year 1970-71, 899,717 children, or 81.96% of all school children in the North Carolina public school system, participated in the School Lunch Program. Of the 81.96%, over 30% of the lunches were either free or reduced in price. In this way, many of North Carolina's children have been assured of the availability of at least one nutritionally adequate meal a day during the school year.

Through the years, state government has learned that there is a cost for all things and that we must spend for those offering the greatest returns in human welfare. At the head of a list of our most prized possessions surely would come the children of our state, our most vital resource for the future. Tomorrow's citizens must be strong; therefore, their health is of vital concern. Proper nutrition is a must for all children, regardless of income. The School Lunch program is a current means of making a vital contribution to the health of our children.

Changes in federal laws regarding the matching of funds for School Lunch Programs have created a need for additional monies to be appropriated at the state level.

RECOMMENDATION

WE RECOMMEND YOUR SUPPORT OF THE NECESSARY SIX (6) PERCENT STATE MATCHING REQUIREMENT (IN THE 1973-75 BIENNIUM) IN ORDER TO CONTINUE THE NATIONAL SCHOOL LUNCH PROGRAM IN NORTH CAROLINA.

6. Minimum Wages

The North Carolina Nutrition Survey revealed that low income is a major factor associated with inadequate diets among the citizens of our state. The minimum wage laws of North Carolina exclude from coverage large groups of the population including agricultural workers and part-time workers. The extension of the minimum wage law to these and other workers would provide many of our lowest income families a living wage.

RECOMMENDATION

WE RECOMMEND THE INITIATION OF LEGISLATION TO BRING MORE JOB CATEGORIES UNDER THE STATE MINIMUM WAGE LAWS.

7. Public Assistance

The Task Force was informed that the State of North Carolina public assistance program is based on a 1952 budget. Although programs intended to aid adults (Aid to the Aged and Aid to the Permanently and Totally Disabled) are paid at 100% of certified need, the Aid to Families with Dependent Children (AFDC) program in North Carolina provides only 86% of certified need. When budgetary needs are not met, adjustable expenses, such as for food, must be reduced inasmuch as fixed expenses (e.g., rent) cannot be reduced. The North Carolina Nutrition Survey Report shows that 43%--almost half of our preschool children--have inadequate diets. Many of these preschool children are among the AFDC families who receive only 86% of their budgeted needs.

Since the federal funds come to the state on a matching basis, every additional dollar provided from state funds would attract six additional dollars from federal sources.

RECOMMENDATION

THE NUTRITION TASK FORCE URGES YOUR SUPPORT OF EFFORTS BY THE NORTH CAROLINA STATE BOARD OF SOCIAL SERVICES TO INCREASE PUBLIC ASSISTANCE PAYMENTS FOR AFDC FAMILIES TO 100% OF CERTIFIED NEEDS.

SUMMARY OF FINDINGS

NORTH CAROLINA NUTRITION SURVEY

(PART I)

Introductory Comments

The North Carolina Nutrition Survey was designed to measure the nutritional status of North Carolinians. Heavy reliance was placed upon the assessment of dietary adequacy of a representative cross-section of North Carolina households. Careful attention to scientific sampling methods permitted the study to provide unbiased estimates of dietary adequacy according to economic conditions, urban-rural differences, region of state, race, age, certain educational factors, and other potentially important variables. By this means, the survey staff hoped to identify the important barriers to attainment of a nutritionally adequate diet.

Dietary Adequacy

Dietary data were obtained for 90% of households in the sample, a high survey response rate. On the basis of a dietary-adequacy rating developed by survey staff, 27% of the households were consuming a nutritionally inadequate diet. The figures for preschool children were not as favorable. Forty-three percent of the children were consuming a nutritionally inadequate diet.

Dietary inadequacy occurred with greatest frequency among households from Eastern North Carolina (39%). When assessing the

the importance of this finding, as well as that of several others to be reported, it would be useful to review the demographic information on Eastern North Carolina:

- (1) Comparatively low household income
- (2) Comparatively large family size
- (3) Comparatively large number of preschoolers in household
- (4) High percent nonwhite

Statewide urban-rural differentials in dietary adequacy were minimal. A clear-cut differentiation was noted when considering race. Nonwhite households were more than twice as likely to have inadequate diets as were white households. Although it is possible that some culturally-determined factors may have been operating, these figures more likely reflect other variables occurring with different frequencies among white and nonwhite households.

Among potentially operating factors studied was the possible correlation with household purchasing power. Reported household income was a significant variable; per capita income was even more so. Forty-three percent of households with per capita income under \$1,000 had inadequate diets, versus only 24% of those with per capita incomes over \$2,000. Relative to the comment concerning racial differences made in the preceding paragraph, it is important to note that the median reported household income for whites was \$7,000, versus \$3,444 for nonwhites.

Food program participation was a factor closely related to income levels because eligibility was based on income and size of

household. Those eligible for the food program, whether or not they were participants, had diets similar to low income groups. There was little difference in the proportion of inadequate diets between participants and non-participants.

It was felt extremely desirable to measure the nutrition knowledge of the homemaker, a variable not previously correlated with dietary adequacy. Optimal or adequate diets were found in 81% of the households in which the homemakers had "good" nutrition knowledge. The comparable figures for those with "limited" and "very limited" nutrition knowledge were 68 and 71%, respectively.

Individual Nutrients

The most commonly deficient nutrients were the vitamins A and C and the mineral calcium. Deficiency in these three nutrients correlated best with race, region, and income. These variables also showed the most apparent relationships with overall dietary quality.

Dietary iron intake was inadequate in only 7% of households but was inadequate in 28% of the diets of preschool children. The fact that only 5% of the children had clinically established iron deficiency anemia may be explained by the fact that a number of the children might have been taking medicinal iron. Also, the very small number of children studied for anemia weakens the reliability of the 5% figure. No correlation of iron intake with any of the other variables was apparent. Diets low in protein were notably infrequent (3%).

Growth of North Carolina Preschool Children

It would appear from the height and weight data that North Carolina children are somewhat shorter than the commonly used Stuart Growth Standards. Of great interest was the suggestion of a relationship between dietary adequacy and growth attainment.

Despite the observed relationships between dietary adequacy and certain variables such as economic status, inadequate diets were not precluded by the presence of high income, good nutritional knowledge, or by any other single factor, for that matter. Yet one cannot dismiss lightly the suggested correlations established by the study.

In this land of unequalled prosperity, it is quite unacceptable that one out of every four families is not consuming an adequate and nourishing diet.

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